## 3.2 Effects Found Not Significant During Initial Study

This section of the EIR provides discussions of those effects that were identified as not significant or less than significant during the Initial Study and did not require further analysis. The Initial Study is included as Appendix D. Each issue addressed includes a brief discussion of existing conditions for the proposed project area and, where applicable, a description of regulations or policies. For the purpose of this EIR, the Guidelines of Determination of Significance apply to both the direct/indirect impacts analysis and the cumulative impact analysis.

The following environmental areas were found to be not significant during the Environmental Initial Study process: Geology and Soils, Mineral Resources, Population and Housing, Recreation, and Utilities. For all of the environmental issues below, the action to approve the proposed Zoning Ordinance amendments would not be significant. The analysis considers the implementation of the proposed project and the future development of wind turbines and MET facilities that could result.

#### 3.2.1 Geology and Soils

Geologic hazards are related to the type of materials that make up the Earth and the movement and processes that occur through time. The topographic conditions, landforms, and geological formations vary greatly across the project area. Significant impacts would occur if the proposed project exposes people or structures to geologic hazards or produces unstable geological conditions. Adverse impacts can result from strong seismic shaking, landslides, mudslides, and ground failure including liquefaction, landslides, lateral spreading, and subsidence.

## 3.2.1.1 Analysis of Project Effects

Small Turbine(s) and MET Facilities

A future small wind turbine or Meteorological Testing (MET) facility built pursuant to the proposed Zoning Ordinance amendment may be located within a fault-rupture hazard zone as identified by the *Fault-Rupture Hazards Zones in California* (DOC 1999), or within an area with substantial evidence of a known fault. However, structures that will be built pursuant to this Zoning Ordinance amendment will be required to comply with the County of San Diego (County) Building Code requirements. Included in the County Building Code are requirements that address seismic events through engineering requirements prior to the issuance of a building permit. Therefore, due to these requirements, the project does not have the potential to expose people or structures to substantial adverse effects.

Future projects may also be located on soils subject to liquefaction such as a "Potential Liquefaction Area" as identified in the County's *Guidelines for Determining Significance*:

November 2011 6281

Geologic Hazards (2007). To ensure the structural integrity of all buildings and structures, any future structures located in these areas must conform to the Seismic Requirements, Chapter 16, Section 162, Earthquake Design, as outlined within the California Building Code. Section 162 requires a soils compaction report with proposed foundation recommendations to be approved by a County structural engineer before the issuance of a Building or Grading Permit. Therefore, exposure of people or structures to potential adverse effects from seismic-related ground failure as a result of this project would be reduced to less than significant.

Future small wind turbines or temporary MET facilities may be located within a Landslide Susceptibility Area as identified in the County's Guidelines for Determining Significance: Geologic Hazards (2007). Landslide Susceptibility Areas were developed based on landslide risk profiles included in Figure 3.2.1-1 which identifies the known locations where landslides are subject to occur throughout the County. Landslide risk areas were based on data including steep slopes (greater than 25%), soil series data (San Diego Association of Governments based on U.S. Geological Survey 1970s series), soil-slip susceptibility from the U.S. Geological Survey, and Landslide Hazard Zone Maps (limited to western portion of the County) developed by the California Department of Conservation, Division of Mines and Geology. Also included within Landslide Susceptibility Areas are gabbroic soils on slopes steeper than 15% in grade because these soils are slide prone. If a small wind turbine or temporary MET facility involved substantial landform modification/grading that may expose people or structures to potential substantial adverse effects from landslides, a discretionary Grading Permit would be required and would require further environmental review. Additionally, future projects involving grading would have to comply with the San Diego County Code of Regulations, Title 8, Zoning and Land Use Regulations, Division 7, Section 87.209, and provide a soils investigation to ensure that recommendations to correct weak or unstable soil conditions have been incorporated in the grading plan and specifications. As part of this process, a geotechnical report may be required to demonstrate the area does not show evidence of either preexisting or potential conditions that could become unstable and result in landslides. Therefore, potential adverse effects from landslides as a result of this project would be less than significant.

Future small wind turbines or MET facilities may be located on expansive soils as defined within Table 18-1-B of the Uniform Building Code (1994). However, impacts would be less than significant because all new construction is required to comply with the improvement requirements identified in the 1997 Uniform Building Code, Division III, Design Standard for Design of Slab-On-Ground Foundations to Resist the Effects of Expansive Soils and Compressible Soils, which ensures suitable structure safety in areas with expansive soils. Therefore, the potential for a project to be located on expansive soil, creating substantial risks to life or property, would be less than significant.

As a result, implementation of the proposed project would not result in significant impacts associated with geology and soils. Compliance with standard construction practices and applicable regulations would ensure that the construction of future small wind turbines and temporary MET facilities would result in **less-than-significant** impacts to geology and soils.

#### Large Turbine(s)

The proposed project amends certain provisions of the County's Zoning Ordinance related to large turbine(s). These updates are necessary to address advancements in technology that have obviated many of the current provisions. The proposed amendments related to large wind turbines consist of updated definitions and requirements related to setbacks, noise, height, and locations where large turbines are permissible. All future large turbine projects will be subject to discretionary review and required to obtain a Major Use Permit. As part of the County's discretionary review process, all future projects would be evaluated under the California Environmental Quality Act and would be required to implement measures to minimize geologic impacts, as necessary. For example, if a future large wind turbine project is located near a fault zone or is located on a site with expansive soil or unstable geologic conditions, a geologic hazards technical report may be required at the discretion of the County. The technical report would assess the site-specific conditions and included mitigation measures, as necessary. Therefore, due to the Major Use Permit discretionary review process required for all future large wind turbine projects, the project would result in less-than-significant impacts to geology and soils.

# 3.2.1.2 Cumulative Impact Analysis

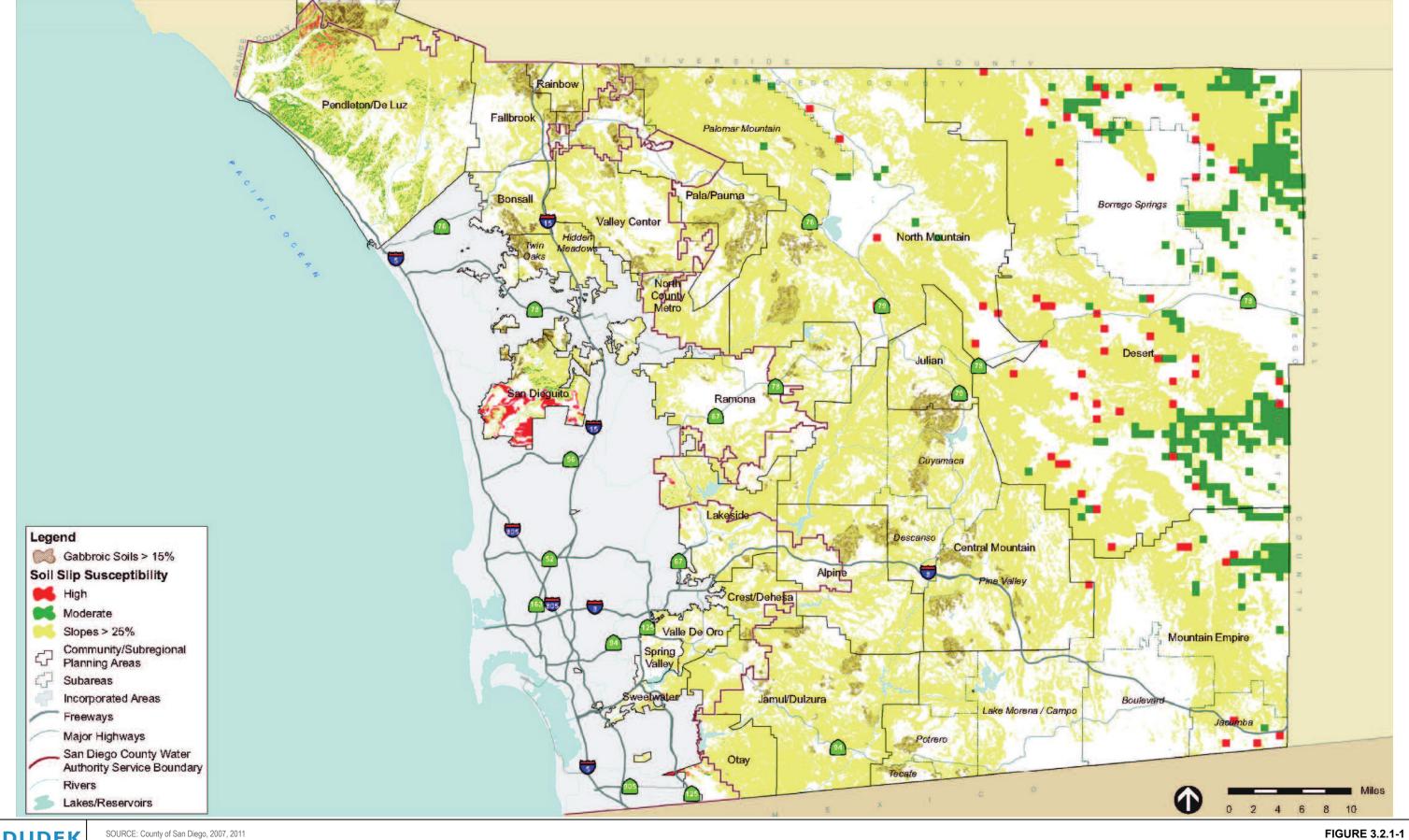
Cumulative impacts to geology or soils may result from exposure to seismic risk, geologic hazards, or creation of unstable geologic conditions. The geographic scope for this cumulative analysis is the immediate area of geologic constraint, except in the case of regional geologic impacts such as earthquakes. Projects located within the County and surrounding jurisdictions are subject to the California Building Code, which includes provisions for structures located in seismic zones. The California Building Code also includes structural engineering standards to ensure structures can withstand changes in the integrity of the soil. Within the County, projects are subject to the County Building Code, as described in Section 3.2.1.1. Other jurisdictions such as tribal lands have policies and guidelines to reduce seismic risks, and cumulative projects in these areas would be subject to these and other applicable state and/or federal regulations. Some projects occurring within Mexico would not be subject to such regulations; however, the geographic scope of cumulative impact analysis is limited to the immediate area because risks of exposing people to seismic and soil hazards within the County do not combine with the risks from other locations. Therefore, the proposed project, in combination with other cumulative projects, would **not contribute to a potentially significant cumulative impact**.

# 3.2.1.3 Mitigation Measures

The proposed project will not result in any significant impacts to geology or soils, and no mitigation measures are required.

## 3.2.1.4 Conclusion

Implementation of the proposed project would not result in significant impacts associated with geology and soils. Compliance with standard construction practices and applicable regulations would ensure that the construction of future small wind turbines and temporary MET facilities would result in less-than-significant impacts. Additionally, compliance with the Major Use Permit discretionary review process would ensure that the construction of large wind turbines would result in less-than-significant impacts.



**DUDEK** 

**Landslide Susceptibility Areas** 

6281-01

Wind Energy Ordinance Draft EIR

3.2.1 Geology and Soils

INTENTIONALLY LEFT BLANK

November 2011 6281